

Colorimeter



DS-200/210/220

Product Features

- Double optical path design improves repeatability accuracy $dE^*ab \leq 0.03$
- 30+measuring indicators such as color difference, whiteness and yellowness.
- Provide nearly 40 evaluation light sources.
- Including UV, can be used for fluorescent color measurement.
- It is equipped with three measuring calibers without tools and can be replaced at any time.
- Built-in high-definition camera to clearly observe the tested area.
- Automatic calibration base ensures long-term stability of the instrument.
- Support WeChat applet, Android, Apple, and Hongmeng mobile app.
- Use the powerful PC-side color management system ColorExpert.

Technical Data

Name	DS-200	DS-210	DS-220
Geometry*	D/8, SCI		
Repeatability**	$\Delta E^*ab \leq 0.03$		
Display Resolution	0.01		
Measuring aperture	One: $\Phi 6mm$	Two: $\Phi 11mm, \Phi 6mm$	Three: $\Phi 11mm, \Phi 6mm, \Phi 3mm$
Measurement index	Reflectance, CIE-Lab, CIE-LCh, HunterLab, CIE-Luv, XYZ, Yxy, RGB, Color difference ($\Delta E^*ab, \Delta E^*cmc, \Delta E^*94, \Delta E^*00$), WI (ASTM E313-00, ASTM E313-73, CIE, ISO2470/R457, AATCC, Hunter, TaubeBergerStensby), YI (ASTM D1925, ASTM E313-00, ASTM E313-73), Blackness (My,dM), Color Fastness, Tint, (ASTM E313-00), Color Density CMYK(A,T,E,M), Milim, Munsell, Opacity, Color strength		
Illuminants	A, B, C, D50, D55, D65, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, CWF, U30, U35, DLF, NBF, TL83, TL84, ID50, ID65, LED-B1, LED-B2, LED-B3, LED-B4, LED-B5, LED-BH1, LED-RGB1, LED-V1, LED-V2		
Light Source	Full-band balanced LED light source		Full-band balanced LED light source+UV
Measurement and observation mode	Visual	Camera	
Calibration	Manual calibration	Intelligent automatic calibration	
Software support	Andriod, iOS, Windows, WeChat applet		
Accuracy	Qualified measurement	Metrology Level I	
Observer Angles	$2^\circ, 10^\circ$		
Sphere Size	40mm		
Standards	CIE No.15, GB/T 3978, GB 2893, GB/T 18833, ISO7724-1, ASTM E1164, DIN5033 Teil7		
Spectroscopic method	Nanometer integrated spectral device		
Sensor	Silicon photodiode array double 16 groups		
Wavelength Interval	10nm		
Wavelength Range	400-700nm		
Reflectance Range	0-200%		
Reflectivity resolution	0.01%		
Measurement method	Single measurement, average measurement (2~99 times)		
Measurement time	About 1 second		
Interface	USB, Bluetooth		
Screen	Full-color display, 2.4 inches		
Battery capacity	Rechargeable, 8000 times continuous tests, 3.7V/3000mAh		
Light Source Lifetime	10 years, 1 million tests		
Language	Chinese and English		
Storage	Instrument: 10000 pieces of data; APP: mass storage		

*45 degree circular illumination/0 degree angle reception

** When a white tile is measured 30 times at 5-seconds interval with MAV